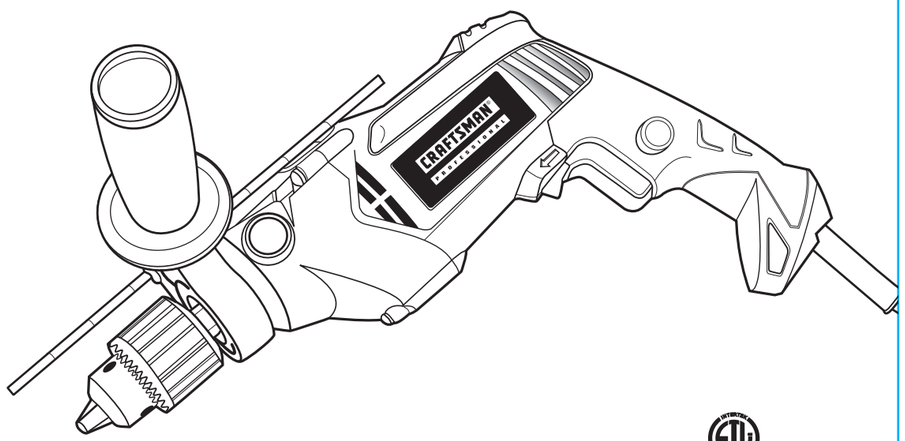
Operator's Manual

CRAFTSMAN
PROFESSIONAL

8.0 Amp / Variable Speed / Reversible

1/2-in. Hammer Drill

Model No.
172.28129



3025736
Certified to
CAN/CSA-C22.2
No.745-1,745-2-1
Conforms to
UL STD 745-1, 745-2-1

Double Insulated

CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

- **WARRANTY**
- **SAFETY**
- **UNPACKING**
- **DESCRIPTION**
- **OPERATION**
- **MAINTENANCE**

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.
Visit our Craftsman® website: www.sears.com/craftsman

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ONE YEAR FULL WARRANTY ON CRAFTSMAN PROFESSIONAL TOOL

If this Craftsman Professional Tool fails due to a defect in material or workmanship within one year from the date of purchase, **RETURN IT TO ANY SEARS STORE OR PARTS AND REPAIR CENTER OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES FOR FREE REPAIR (OR REPLACEMENT IF REPAIR PROVES IMPOSSIBLE).**

This warranty does not include expendable parts such as lamps, batteries, bits or blades.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

Sears, Roebuck and Co., Hoffman Estates, IL 60179

SAVE THESE INSTRUCTIONS!
READ ALL INSTRUCTIONS!

⚠ WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your **careful attention and understanding.** The symbol warnings **DO NOT** by themselves eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: BE SURE to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER", "WARNING" and "CAUTION", BEFORE using this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SYMBOL MEANING

SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

⚠ DANGER — **Failure to obey this safety warning WILL result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**

⚠WARNING — **Failure to obey this safety warning CAN result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**

⚠CAUTION — **Failure to obey this safety warning MAY result in personal injury to yourself or others or property damage. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.**

DAMAGE PREVENTION AND INFORMATION MESSAGES

These inform user of **important information and/or instructions** that could lead to equipment or other property damage if not followed. Each message is preceded by the word "NOTE:" as in the example below:

NOTE: Equipment and/or property damage may result if these instructions are not followed.

⚠WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, ALWAYS wear safety goggles or safety glasses with side shield and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, available at Sears Stores or other Craftsman Outlets.

SAFETY INSTRUCTIONS

⚠ WARNING: BE SURE to read and understand all instructions in this manual before using this power tool. Failure to follow all instructions may result in electric shock, fire and / or serious personal injury.

WORK AREA SAFETY

1. **Keep your work area clean and well lit.** Cluttered workbenches and dark areas invite accidents.
2. **DO NOT operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children and visitors away while operating a power tool.** Distractions can cause you to lose control.
4. **Make your workshop childproof** with padlocks and master switches. Lock tools away when not in use.
5. **MAKE SURE the work area has ample lighting** so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your power tool.

PERSONAL SAFETY

1. **KNOW your power tool.** Read the operator's manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.
2. **STAY ALERT,** watch what you are doing and use common sense when operating a power tool.
3. **DO NOT** use tool while tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
4. **DRESS properly. DO NOT** wear loose clothing or jewelry. Pull back long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothing, or long hair can be caught in moving parts. Air vents often cover moving parts and should also be avoided.
5. **AVOID** accidental starting. Be sure switch is in **"OFF"** position before plugging in. **DO NOT** carry tools with your finger on the switch. Carrying tools with your finger on the switch or plugging in tools that have the switch in the **"ON"** position invites accidents.
6. **REMOVE** adjusting keys or blade wrenches before turning the tool **"ON"**. A wrench that is left attached to a rotating part of the tool may result in personal injury.
7. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
8. **ALWAYS SECURE YOUR WORK.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
9. **USE SAFETY EQUIPMENT. Always** wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

SAFETY INSTRUCTIONS cont.

TOOL USE AND CARE SAFETY

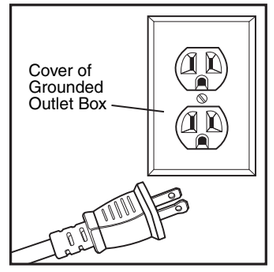
⚠ WARNING: BE SURE to read and understand all instructions before operating this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

1. **ALWAYS use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
2. **DO NOT force the tool. Use the correct tool and blade for your application.** The correct tool and accessory will do the job better and safer at the rate for which it is designed.
3. **DO NOT use the tool if switch does not turn it "On" or "Off".** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
4. **DISCONNECT the plug from the power source before making any adjustments, changing accessories or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **STORE idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **MAINTAIN tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
7. **CHECK for misalignment or binding of moving parts, breakage of parts,** and any other condition that may affect the tool's operation. **If damaged,** have the tool serviced before using. Many accidents are caused by poorly maintained tools.
8. **USE ONLY accessories that are recommended for this tool.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

ELECTRICAL SAFETY

⚠ WARNING: Do not permit fingers to touch the terminals of plug when installing or removing the plug from the outlet.

1. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way.** If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a **qualified electrician** to install a polarized outlet. Do not change the plug in any way.
2. Double insulation ⧈ eliminates the need for the three-wire grounded power cord and grounded power supply system. Applicable only to Class II (double-insulated) tools.
   This tool is a double insulated tool.



⚠ WARNING: Double insulation DOES NOT take the place of normal safety precautions when operating this tool.

3. **BEFORE** plugging in the tool, **BE SURE** that the outlet voltage supplied is within the voltage marked on the tool's data plate. **DO NOT** use "AC only" rated tools with a DC power supply.

ELECTRICAL SAFETY cont.

4. **AVOID body contact with grounded surfaces**, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
5. **DO NOT expose power tools to rain or wet conditions or use power tools in wet or damp locations.** Water entering a power tool will increase the risk of electric shock.
6. **INSPECT tool cords for damage.** Have damaged tool cords repaired at a **Sears Service Center**. **BE SURE** to stay constantly aware of the cord location and keep it well away from the moving blade.
7. **DO NOT abuse the cord. NEVER use the cord to carry the tool by or to pull the plug from the outlet**. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

EXTENSION CORDS

Use a proper extension cord. ONLY use cords listed by Underwriters Laboratories (UL). Other extension cords can cause a drop in line voltage, resulting in a loss of power and overheating of tool. For this tool an AWG (American Wire Gauge) size of a least 14-gauge is recommended for an extension cord of 25-ft. or less in length. Use 12-gauge for an extension cord of 50-ft. **Extension cords 100-ft. or longer are not recommended.** Remember, **a smaller wire gauge size has greater capacity than a larger number** (14-gauge wire has more capacity than 16-gauge wire; 12-gauge wire has more capacity than 14-gauge). When in doubt use the smaller number. When operating a power tool outdoors, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

⚠ CAUTION: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool.

⚠ WARNING: Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock, resulting in serious injury.

SAFETY SYMBOLS FOR YOUR TOOL

The label on your tool may include the following symbols.

V	Volts
A	Amps
Hz	Hertz
W	Watts
~	Alternating current
⎓	Direct current
n_o	No-load speed
⧈	Class II construction, Double Insulated
RPM	Revolutions per minute
SPM	Strokes per minute
OPM	Orbits per minute
⚠	Indicates danger, warning or caution. It means attention! Your safety is involved.

SERVICE SAFETY

1. **If any part of this tool is missing or should break, bend, or fail in any way; or should any electrical component fail to perform properly: SHUT OFF** the power switch and remove the saw's plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
2. **Tool service must be performed only at a Sears Service Center.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
3. **When servicing a tool, use only identical replacement parts. Follow instructions in the maintenance section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SAFETY RULES FOR HAMMER DRILLS

1. **Know your Professional Hammer Drill. Read operator's manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire, or serious injury.**
2. **BE SURE that twist drill bits, drive bits, hammer drill bits and other accessory attachments are properly and securely mounted in the chuck jaws BEFORE operating the hammer drill.**
3. **ALWAYS** carefully inspect the material you are going to drill into. Drilling into nails, pipes and electrical wires can cause serious personal injury.
4. **HOLD HAMMER DRILL by insulated gripping surfaces (handles) when performing an operation where the tool may drill into hidden wiring.** Contact with a "live" wire will make the exposed metal parts of the tool "live" and shock the operator.
5. **NEVER hold the piece being drilled in your hands or across your legs.** It is important to support and clamp the workpiece properly in order to minimize body exposure, bit binding, or loss of control.

SAFETY INSTRUCTIONS cont.

SAFETY RULES FOR HAMMER DRILLS cont.

6. **Maintain a firm grip** on the hammer drill to resist starting torque.
7. **Wear safety goggles or other eye protection.** Hammering and drilling operations cause chips to fly. Flying particles can cause permanent eye damage.
8. **Wear ear protectors when hammering for extended periods** of time. Temporary hearing loss or serious ear drum damage may result from high sound levels generated by hammer drilling.
9. **ALWAYS use the side handle supplied with the tool.** Keep a firm grip on the tool at all times. **Do not attempt** to operate this tool without holding it with both hands.
10. Do not overreach while operating the tool. Maintain a balanced working stance at all times. When necessary, use only properly positioned, safe, platforms and scaffolding. **WORK SAFELY.**
11. **Hammer drill bits and tools get hot** during operation. Wear gloves when touching them.

⚠ **CAUTION: DO NOT TOUCH ANY METAL PARTS OF THE TOOL** when drilling or driving into walls, floors or wherever tool could drill into hidden wiring. Hold the tool only by insulated grasping surfaces to prevent electric shock if you drill or drive into a live wire.

⚠ **CAUTION: Wear appropriate hearing protection during use.** Under some conditions and duration of use, noise from this product may contribute to hearing loss.

⚠ **WARNING: Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:**

- **Lead from lead-based paints.**
- **Crystalline silica from bricks and cement and other masonry products.**
- **Arsenic and chromium, from chemically treated lumber.**

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- **Work in a well-ventilated area.**
- **Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.**

Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

SAFETY INSTRUCTIONS cont.

⚠ **WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH / OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.**

ADDITIONAL RULES FOR SAFE OPERATION

⚠ **WARNING: BE SURE to read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and / or serious personal injury.**

1. **Know your power tool. Read operator's manual carefully.** Learn the applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire or serious injury.
2. **ALWAYS wear safety glasses or eye shields when using this tool.** Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.
3. **PROTECT your lungs.** Wear a face mask or dust mask if the operation is dusty.
4. **PROTECT your hearing.** Wear appropriate personal hearing protection during use. Under some conditions noise from this product may contribute to hearing loss
5. **ALL VISTORS AND BYSTANDERS MUST** wear the same safety equipment that the operator of the tool wears.
6. **INSPECT the tool cords periodically and if damaged have them repaired at your nearest Sears Service Center. ALWAYS BE AWARE of the cord location.**
7. **ALWAYS check the tool for damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine if it will operate properly and perform its intended function. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. A guard or other part that is damaged should be properly repaired or replaced at a Sears Service center.
8. **SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this tool. If someone borrows this tool, make sure they have these instructions also.**

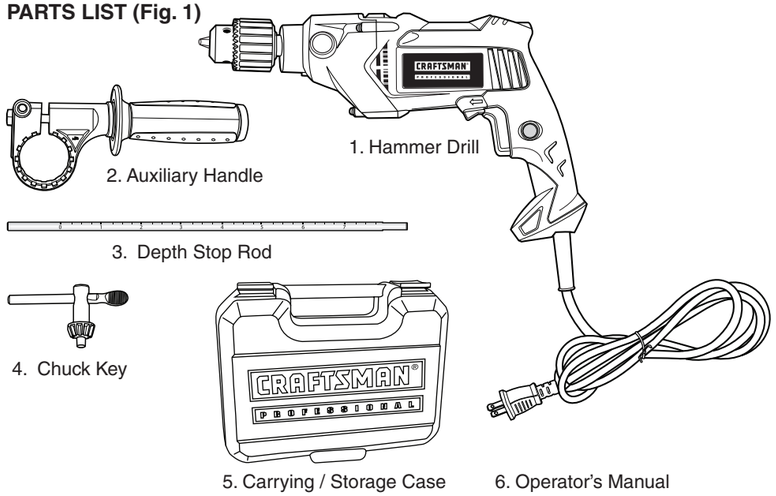
UNPACKING

⚠ WARNING: Your tool should NEVER be connected to the power source when you are assembling parts, making adjustments, installing or removing bits, cleaning or when it is not in use. Disconnecting the drill will prevent accidental starting, which could cause serious personal injury.

1. Remove the **hammer drill** from the **storage / carry case** and inspect it carefully to make sure that no breakage or damage has occurred during shipping.
2. Do not discard any of the packing materials until all parts are accounted for.
3. Included with this hammer drill is an **auxiliary handle, a depth stop rod,** and a **chuck key.**
4. If any of the parts are damaged or missing (refer to PARTS LIST below), return the saw to your nearest Sears store or Craftsman outlet to have the tool replaced.

⚠ WARNING: If any parts are missing, DO NOT operate this tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

PARTS LIST (Fig. 1)



1. Hammer Drill
2. Auxiliary Handle
3. Depth Stop Rod
4. Chuck Key
5. Carrying / Storage Case
6. Operator's Manual

⚠ WARNING: Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

DESCRIPTION

KNOW YOUR HAMMER DRILL (Fig. 2)

NOTE: Before attempting to use this product, familiarize yourself with all operating features and safety rules.

Your Hammer Drill has a precision-built electric motor and it should be connected to a 120-volt, 60-Hz AC **ONLY** power supply (normal household current). **DO NOT** operate on direct current (DC). The large voltage drop will cause a loss of power and the motor will overheat. If the drill does not operate when plugged into correct 120-volt, 60-Hz AC ONLY outlet, check the power supply. This hammer drill has a 10-ft., 2-wire power cord (no adapter needed).

This Hammer Drill has the following features:

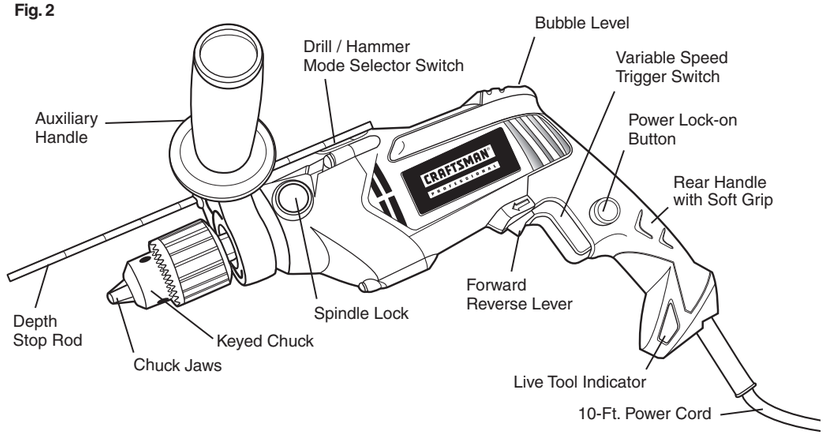
1. **8.0 Amp Motor**
   Provides torque, power and durability to handle continuous heavy-duty rotary or hammer drilling jobs
2. **Mode Selector Switch**
   For easy changes to rotary or hammer drilling applications
3. **Rotary Drilling**
   Variable speed 0-2800 / min (no-load speed) allows matching drilling / driving speed to bits and materials in a variety of job applications such as hard or soft woods, metal and various building materials.
4. **Forward / Reverse Lever**
   Conveniently located, reverse to back out screws and jammed bits when rotary drilling / driving
5. **Hammer Drilling**
   Variable speed 0-44,800 BPM (blows per minute) impact rate, for fast drilling in concrete, brick, stone and tile
6. **Variable Speed Trigger Switch**
   Controls speed, increase pressure for higher speed and torque
7. **Power Lock-on Button**
   For use in continuous stationary hammer drilling applications
8. **1/2-in. Keyed Steel Chuck**
   Tighten bits quickly and securely with chuck key and spindle lock
9. **Spindle Lock**
   Manually lock chuck's spindle shaft for safe, secure tightening of bits in chuck
10. **360° Auxiliary Handle and Rear Handle with Soft-Grip**
    Provides maximum balance, control and gripping comfort. Auxiliary handle mounts in any position for left or right hand use
11. **Depth Stop Rod**
    Mounts in auxiliary handle and adjusts for precise pre-set drilling depths
12. **Bubble Level**
    Helps provide more accurate right angle drilling / driving and hammer drilling straight into workpiece
13. **Live Tool Indicator**
    Green LED light lets you know when drill is plugged into power source

DESCRIPTION cont.

This Hammer Drill has the following features: cont.

14. **Metal Gear Box and Die-Cast Aluminum Gear Housing**
    For durability and long life. Helps protect tool from damage
15. **High Impact-Resistant Housing**
    Helps protect tool from damage and reduces weight
16. **Permanently Lubricated 100% Ball Bearings**
    For smooth operation and long life
17. **Impact Resistant Case**
    For easy carrying and convenient storage of drill and accessories

Fig. 2



PRODUCT SPECIFICATIONS	
Rating	120 Volts, 60 Hz AC
Input	8.0 Amps
Rotary Drilling (No-load Speed)	0-2800 / min. Variable Speed
Hammer Drilling (No-load Speed)	0-44,800 / BPM (blows per minute) Impact rate
Chuck	1/2-in. Keyed

OPERATION

⚠ WARNING: Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields when operating power tools. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

VARIABLE SPEED TRIGGER SWITCH (Fig. 3)

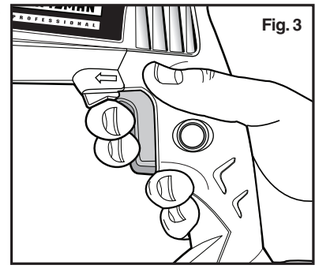


Fig. 3

The variable speed trigger switch controls the variable speed in either the rotary drilling or hammer drilling modes.

The drill delivers **higher speed and torque** with increased pressure on the trigger switch and **lower speed and torque** when the pressure is decreased.

To start the hammer drill, press the trigger switch. To stop hammer drill, release the trigger switch.

NOTE: You might hear a whistling or ringing noise from the trigger switch during low speed use. Do not be concerned; this is a normal part of the switch function.

ROTARY AND HAMMER DRILLING MODE SELECTOR SWITCH (Fig. 4)

Always have the trigger switch in the OFF position when operating the mode selector switch.

To select the rotary or hammer drilling mode:

1. Press in the end of the selector lever and rotate so the lever points to either the rotary drilling symbol 2 or the hammer drilling symbol T.
2. When the lever is pointing to the mode you selected, you will feel it **click** in on the selection, and the drill will now operate in your selected mode.

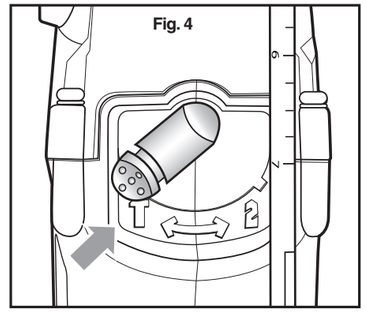


Fig. 4

NOTE: The selector switch must be in either the rotary or hammer drilling modes at all times; there are no operable positions between the two modes.

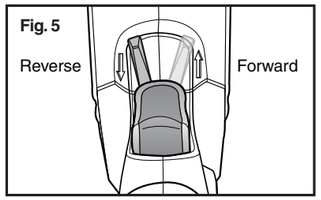
OPERATION cont.

FORWARD / REVERSE LEVER (Fig. 5)

The direction of bit rotation, forward or reverse, is controlled by the lever above the trigger switch.

Always have the trigger switch in the OFF position when operating the forward / reverse lever.

1. For the Forward Bit Rotation the lever should be to the left of the trigger switch (as you hold drill, pointing forward, looking down), pointing to the embossed arrow pointing forward towards the chuck.



This forward position is used for Rotary drilling / driving and Hammer drilling.

2. To reverse Bit Rotation when in the Rotary drilling / driving mode only, move the lever to the right of the trigger, pointing to the embossed arrow pointing towards the rear of the drill.

This reverse position is ONLY USED when rotary drilling / driving to back out screws and jammed bits.

NOTE: The hammer drilling function will not operate for reverse hammering.

⚠ CAUTION: To prevent gear damage, always allow the chuck to come to a complete stop before changing the direction of rotation.

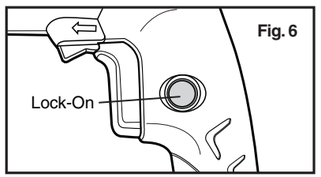
POWER LOCK-ON FEATURE (Fig. 6)

The Power Lock-On button is for use only when the hammer drill is mounted in a drill press stand or otherwise held stationary. Do Not use the power lock-on feature when drilling or driving by hand, so you can instantly release the trigger switch and stop the drill if the bit binds in the hole or fastener. Be sure to release the power lock-on feature before disconnecting the plug from the power supply. Failure to do so will cause the hammer drill to start immediately the next time it is plugged in. Damage or injury could result.

The power lock-on feature, is convenient for continuous drilling for extended periods of time.

To lock-on:

1. Depress the variable speed trigger switch.
2. Push in and hold the lock-on button, located on the side of the drill's rear handle.
3. Release the variable speed trigger switch.
4. Release the power lock-on button and the drill will continue running at maximun speed.
5. To release the power lock-on, depress and release the variable speed trigger switch.



⚠ WARNING: Before connecting the drill to a power supply source, always check to be sure it is not in the power lock-on position by depressing and releasing the variable speed trigger switch. Failure to ensure that it is not locked-on could result in accidental starting of the drill, resulting in possible serious injury. DO NOT lock the variable speed trigger switch in applications where the drill may need to be suddenly stopped.

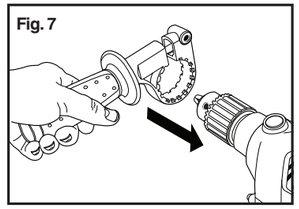
OPERATION cont.

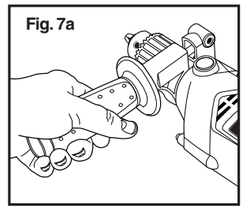
360° AUXILIARY HANDLE (Figs. 7 and 7a)

The auxiliary handle clamps to the front of the gear case as shown (see Fig. 7).

It can be rotated 360° to allow either right or left hand use, providing maximum balance and control in any operating position.

To assemble the auxiliary handle onto the drill, slide the clamp's assembly collar completely over and past the chuck onto the front of the drill's gear case (see Fig. 7a) and tighten by twisting the handle.





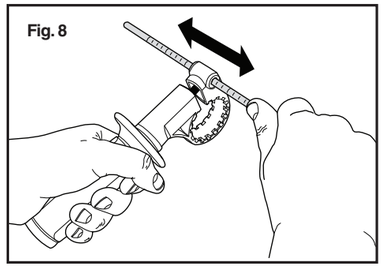
DEPTH STOP ROD (Fig. 8)

The Depth Stop Rod is used to control the depth of a hole when you are not through-drilling.

The depth stop rod mounts into the clamp's assembly collar of the 360°auxiliary handle.

To adjust the depth stop rod, forward or backwards, loosen the collar of the clamp assembly by twisting the auxiliary handle to loosen or tighten.

To adjust the depth stop rod for drilling to a selected hole depth, move the rod so that the distance between the end of the rod and the end of the drill bit equals the desired hole depth (see Fig. 8).



When drilling, stop when the end of the depth stop rod touches the surface you're drilling in.

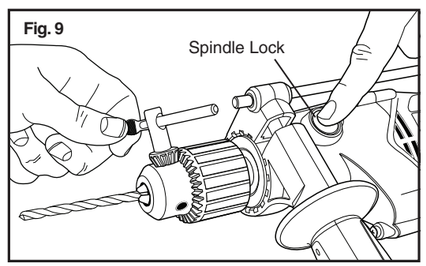
The depth stop rod is marked in inches, 1 through 7.

1/2-IN. KEYED STEEL CHUCK (Fig. 9)

The steel chuck is designed, constructed and machined for heavy-duty use, durability and long service life.

Easily and securely install or remove accessory bits using the chuck key provided and the spindle lock on the drill.

Apply a light coat of premium machine oil to the surface of the chuck face and jaws from time to time for rust resistance.



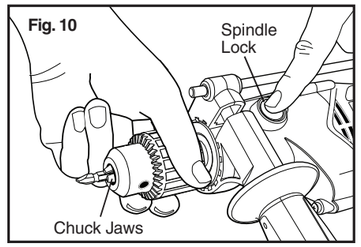
SPINDLE LOCK (Fig. 10)

The spindle lock is a convenience feature that allows you to tighten or loosen the chuck jaws around a bit without having to use the chuck key.

1. Unplug the hammer drill.

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE assembling parts, making adjustments or changing bits.

2. Depress and hold the spindle lock button.
3. While keeping the button depressed, manually rotate the chuck until the spindle shaft "clicks" into a stationary position. Rotate clockwise for tightening, and counterclockwise for loosening.
4. Continue to rotate the chuck until the jaws are tight around the bit. If loosening, rotate until the jaws are free of the bit.
5. Release the spindle lock button.



NOTE: To ensure that jaws are tight, you may want to insert the chuck key into the chuck and add an extra tightening twist.

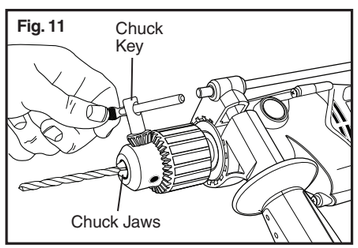
INSTALLING AND REMOVING ACCESSORY BITS (Fig. 11)

You may install or remove bits using the spindle lock button as described above, or you may simply use the chuck key inserted into the chuck. If you use the chuck key, you don't have to depress the spindle lock button. To loosen or tighten chuck with chuck key:

1. Unplug the hammer drill

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE assembling parts, making adjustments or changing bits.

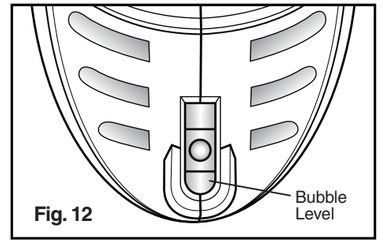
2. Insert chuck key into one of the holes in the side of the chuck. Turn key to tighten or loosen jaws for installing or removing bit
3. If tightening, hold bit firmly in place. Always make sure bit is tightly secured in the chuck jaws before beginning operation.



BUBBLE LEVEL (Fig. 12)

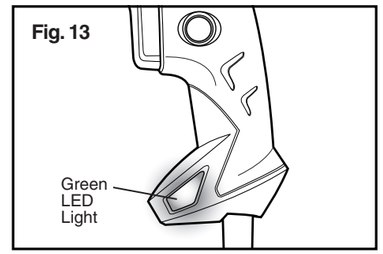
In order to insure a perfect right angle when drilling / driving and hammer drilling into a workpiece, you can use the built-in bubble level on the back of the drill / driver. The bubble level is designed to work when the hammer drill is in a horizontal position.

Line the air bubble up in the appropriate circle, and to the workpiece. This will help insure that you will drill / drive or hammer drill straight into the workpiece.



LIVE TOOL INDICATOR LIGHT (Fig. 13)

Your hammer drill has a LIVE TOOL INDICATOR green LED light that comes on when the drill is plugged into a power source. This lets you know you have a live tool.



OPERATING THE HAMMER DRILL AS A DRILL / DRIVER

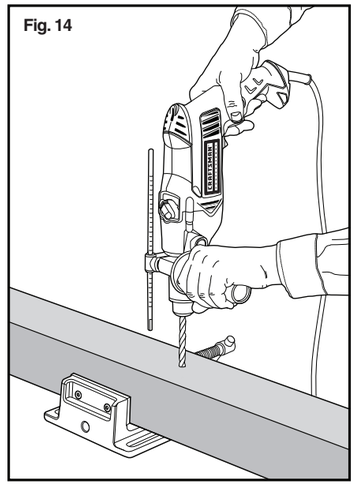
When using your 1/2-in. Hammer Drill for standard drill / driving applications, make sure you have the **Rotary and Hammer Drilling Selector Switch** in the Rotary Drilling position (see Page 13, Fig. 4).

NOTE: When unplugging the drill, first make sure that the Power Lock-On Feature is not engaged, by pressing on the trigger switch to release it. Failure to do so will cause the hammer drill to start immediately the next time it is plugged in. Property damage or serious personal injury could result.

ROTARY DRILLING (Fig. 14)

1. Always unplug the drill when installing or removing bits and accessories.
2. Use sharp bits only. Always use Craftsman bits and accessories to help ensure desired performance.
3. **For drilling in wood** use twist drill bits, spade bits, power auger bits and hold saws.
4. Start drilling in wood with slow speed and increase to full power while applying firm pressure on the hammer drill.
5. Pull the bit out of the hole frequently to clear the wood chips away from the flutes to help keep the bit from overheating.

ROTARY DRILLING (Fig. 14) cont.



6. Always clamp the workpiece firmly. If drilling thin material, use a wood “back-up” block to prevent splintering or damage to the workpiece.
7. Always apply pressure in a straight line with the bit. Use enough pressure to keep the drill bit biting, but do not push hard enough to stall the motor or deflect the bit.
8. Hold the hammer drill firmly to control the twisting action of the hammer drill and bit.
9. IF HAMMER DRILL STALLS, it is usually because it is being overloaded or improperly used. RELEASE TRIGGER SWITCH IMMEDIATELY, remove drill bit from workpiece, and determine cause of stalling. DO NOT START AND STOP A STALLED DRILL BY QUICKLY APPLYING AND RELEASING PRESSURE ON THE TRIGGER SWITCH. THIS CAN DAMAGE THE DRILL.
10. To minimize stalling or breaking through the workpiece, reduce pressure on the hammer drill and ease the bit through the last part of the hole.
11. Keep the motor running when pulling the bit out of a drilled hole. This will help prevent the bit from jamming.
12. With variable speed there is no need to use a center punch at the point to be drilled. Just use a slow speed to start the hole and accelerate by applying pressure to the trigger switch when the hole is deep enough to drill without the drill bit skipping out of the hole.
13. **When drilling in metal** start drilling with slow speed and increase to full power while applying pressure on the hammer drill. A smooth even flow of metal chips indicates proper drilling rate. Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass, which should be drilled dry. The cutting lubricants that work best are sulfurized cutting oil or lard oil; bacon grease will also serve the purpose.

NOTE: Large holes in steel (5/16 to 1/2 inches) can be made more easily if a pilot hole 5/32 to 3/16-inch is drilled first.

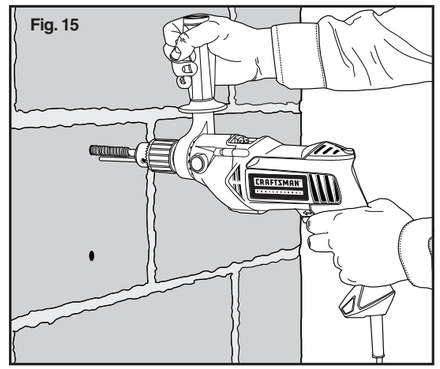
14. When driving screws and various types of fasteners, always use the proper driving bit matched to the screw or fastener. Start the driving action using a constant force on the fastener at a lower speed and torque, slowly increasing the speed and torque to effectively drive and set the fastener in its finished position.

OPERATING THE DRILL AS A HAMMER DRILL

When using your drill for percussion hammer drilling applications, make sure you have the **Rotary and Hammer Drilling Selector Switch** in the Hammer Drilling position (see Page 13, Fig. 4).

NOTE: When unplugging the drill, first make sure that the Power Lock-On Feature is not engaged, by pressing on the trigger switch to release it. Failure to do so will cause the hammer drill to start immediately the next time it is plugged in. Property damage or serious personal injury could result.

HAMMER DRILLING (Fig. 15)



1. Always unplug the drill when installing or removing bits and accessories.
2. When hammer drilling in masonry such as brick, concrete, cinder block, stone and tile, use only carbide tipped bits rated for percussion drilling and be certain that the bit is sharp.
3. Make sure that the hammer drill mode is selected and that the bit is securely installed in the chuck.
4. Use a constant and firm force on the hammer drill to drill effectively. A smooth, even flow of dust from the hole indicates the proper hammer drilling rate.
5. Start hammer drilling at slower speeds and increase to full speed while applying firm pressure on the hammer drill.
6. When hammer drilling, use just enough force on the drill to keep it from bouncing excessively or “rising” off the bit. Too much force will cause slower drilling speeds, overheating, and a slower drilling rate.
7. Drill straight and keep the bit at a right angle to the work (the bubble level will help). Do not exert side pressure on the bit when hammer drilling, as this will cause clogging of the bit flutes, overheating, and a slower drilling speed.
8. When hammer drilling deeper holes, pull the bit partially out of the hole frequently (with the drill still running), to help clear debris from the hole. This will help keep the bit form overheating and produce a cleaner drilled hole.

MAINTENANCE

⚠ WARNING: To ensure safety and reliability, repairs, maintenance and adjustments MUST be performed by a qualified service technician at a Sears Service Center.

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug drill from the power source before performing any maintenance or cleaning.

It has been found that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on these materials, **it is extremely important** that the tool is cleaned frequently by blowing with an air jet.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields during power tool operations, or when blowing dust. If operation is dusty, also wear a dust mask.

ROUTINE MAINTENANCE

⚠ WARNING: DO NOT at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury.

Periodic maintenance allows for long life and trouble-free operation. A cleaning, lubrication and maintenance schedule should be maintained. As a common preventive maintenance practice, follow these recommended steps:

⚠ WARNING: For your safety, ALWAYS turn off switch and unplug saw from the power source before performing any maintenance or cleaning.

1. When work has been completed, clean the tool to allow smooth functioning of the tool over time.
2. Use clean damp cloths to wipe the tool.
3. Check the state of all power cords.
4. Keep the motor air vent openings free from oil, grease and sawdust or woodchips, and store tool in a dry place.
5. Be certain that the chuck and jaws are well lubricated with a light machine oil, particularly after lengthy exposure to damp and/or dirty conditions.
6. Apply a light coat of machine oil to the surface of the chuck face and jaws from time to time for rust resistance.

MAINTENANCE cont.

CHUCK REMOVAL (Fig. 16, 16a and 16b)

The chuck may be removed and replaced with a new one.

1. Unplug the hammer drill.

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE assembling parts, making adjustments or changing bits.

2. Insert a 5/16-in. or larger hex key into the chuck of the drill and tighten the chuck jaws securely with the chuck key and spindle lock.
3. Tap the hex key sharply with a mallet in a clockwise direction. This will loosen the screw in the chuck for easy removal.
4. Open the chuck jaws and remove the hex key. Using a screwdriver, remove the chuck screw by turning it in a clockwise direction (see Fig. 16a). Note that the chuck screw has left hand threads and clockwise direction loosens instead of tightens.
5. Insert the hex key into the chuck and tighten the chuck jaws securely. Tap sharply with a mallet in a counterclockwise direction (see Fig.16b). This will loosen the chuck on the spindle. It can now be unscrewed by hand.

Fig. 16

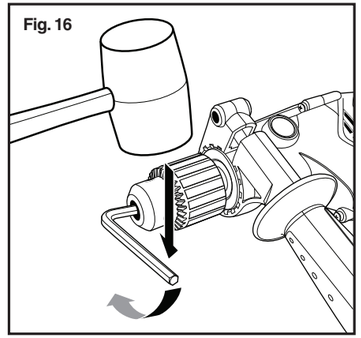


Fig. 16a

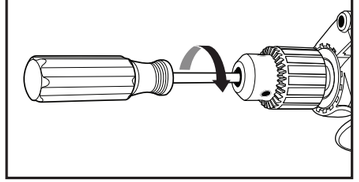
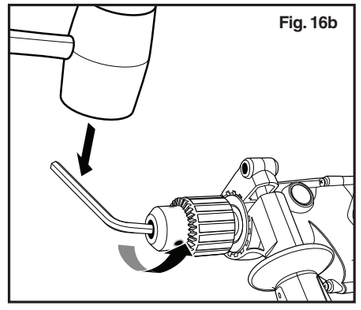


Fig. 16b



MAINTENANCE cont.

TO RETIGHTEN A LOOSE CHUCK (Figs. 17 and 17a)

The chuck may become loose on the spindle and develop a wobble. Also, the chuck screw may become loose, causing the chuck jaws to bind and prevent them from closing.

To tighten:

1. Unplug the hammer drill.

⚠ WARNING: To prevent personal injury, ALWAYS disconnect the plug from power source BEFORE assembling parts, making adjustments or changing bits.

2. Open the chuck jaws
3. Insert a 5/16 in. or larger hex key into the chuck and tighten the chuck jaws securely. Tap the hex key sharply with a mallet in a clockwise direction. This will tighten the chuck on the spindle.
4. Open the chuck jaws, and remove the hex key.
5. Tighten the chuck screw. Note that the chuck screw has left hand threads and counterclockwise direction tightens instead of loosens.

Fig. 17

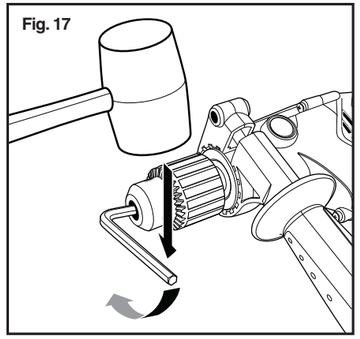
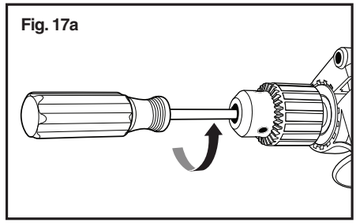


Fig. 17a



ACCESSORIES

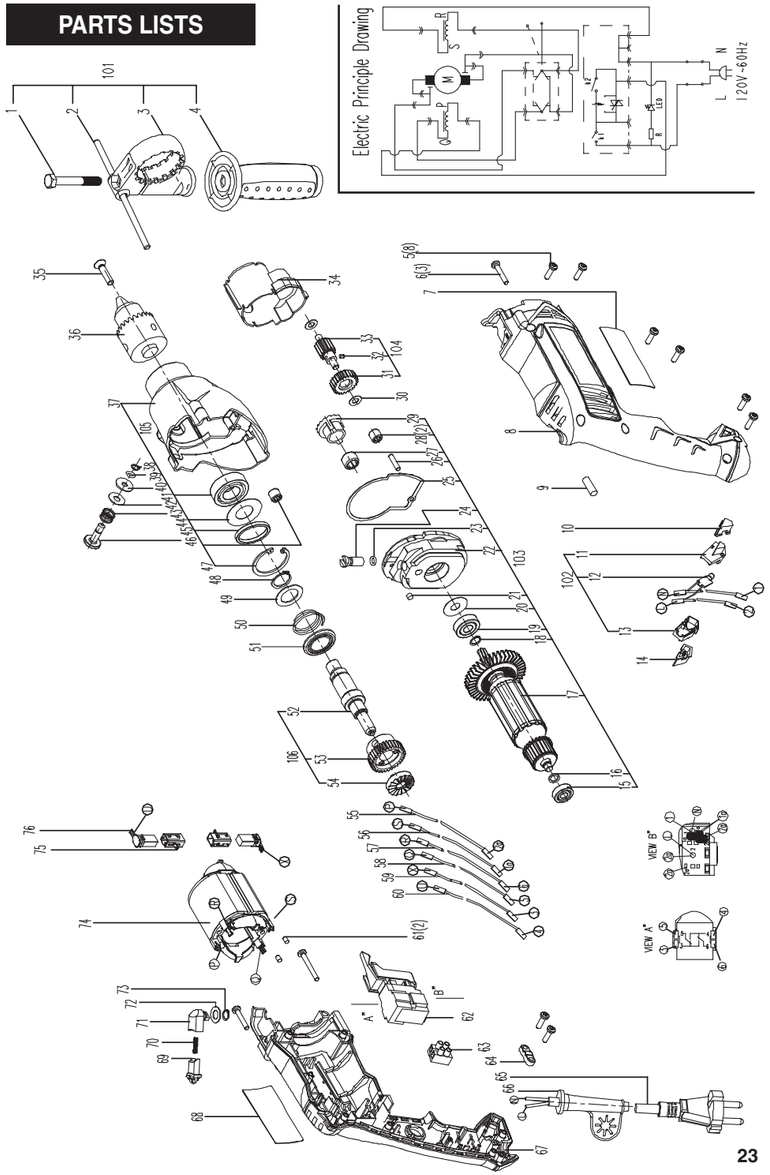
⚠ WARNING: The use of attachments or accessories that are not recommended for this tool might be dangerous and could result in serious injury.

Sears and other Craftsman® outlets offer a large selection of Craftsman drill/driver accessories designed for all your drill/driving applications.

You may purchase kits and sets specifically for drilling and driving, twist drill bit sets, a variety of power drill/driving bit sets, spade bit sets, hole saws, carbide-tipped masonry drill bit sets that are percussion rated, extra long bits, magnetic bit holders and more.

Visit your local Sears store or other Craftsman outlets or shop sears.com/craftsman for all of the accessories for your hammer drill.

PARTS LISTS



PARTS LIST cont.

HAMMER DRILL – MODEL NUMBER 172.28129

Item No.	Parts No.	Part Description	Qty.
101	200T0230009000A-00	Side handle set	1
1	200W2000022000A-00	Bolt	1
2	200T0230007000A-00	Depth ruler	1
3	200T0230006000A-00	handle-sheath	1
4	200T0230008000A-00	handle	1
5	200W4000034000A-00	Self tapping screw(ST4.2x16)	8
6	200W4000040000A-00	Self tapping screw(ST4.2x28)	3
7	2PDI11Q0007000A-00	Rated label	1
8	2PDI11Q0003000A-00	Right housing	1
9	2CDT04A0007000A-00	Gradienter	1
10	2PDI11Q0005000A-00	Light cover right	1
102	2PDI11Q0400000A-00	Light set	1
11	2PDI11Q0402000A-00	Light cover down	1
12	2PDI11Q0410000A-00	Power supply board	1
13	2PDI11Q0401000A-00	Light cover up	1
14	2PDI11Q0004000A-00	Light cover left	1
103	2PDI11Q0300000A-00	Center cover set	1
15	200W8000006000A-00	Ball bearing (607-2Z/P63)	1
16	200T0240054000A-00	Washer	1
17	20TC9520028000A-00	Tc armature	1
18	200W7000012000A-00	Circlip(9)	1
19	200W8000018000A-00	Ball bearing(609-2Z/P63)	1
20	200T0240074000A-00	Washer	1
21	2PDI05P0303000A-00	Felt seal	1
22	2PDI11Q0301000A-00	Center cover	1
23	200T0080002000A-00	Rubber O-ring	1
24	2PDI04A0203000A-00	Converting-pin	1
25	2PDI11Q0302000A-00	Seal ring	1
26	200W5200074000A-00	Cylindrical pin (A4x18)	1
27	200W8100004000A-00	Roller bearing(HK101410)	1
28	200W8100002000A-00	Roller bearing(HK0610 09)	2
29	2PDI04A0202000A-00	Serrated disc	1
30	200T0240001000A-00	Washer	2
104	2PDI04P0500000A-00	Middle shaft set	1
31	2PDI04P0502000A-00	Gear	1
32	200W8300006000A-00	Pin3x15.8	1
33	2PDI04P0501000A-00	Middle shaft	1
34	2PDI11Q0001000A-00	Fixing block	1
35	200W3100004000A-00	screw(M6x25)	1
36	200W1060026000A-00	Chuck	1
105	2PDI11Q0100000A-00	Gear box set	1
37	2PDI11Q0101000A-00	Fore housing	1
38	200W7000008000A-00	Circlip(6)	1
39	200T0080046000A-00	Rubber O-ring	1
40	200T0250024000A-00	Felt seal	1
41	200W8000063000A-00	Ball bearing(6003-RSZ)	1

PARTS LIST cont.

HAMMER DRILL – MODEL NUMBER 172.28129

Item No.	Parts No.	Part Description	Qty.
42	200T0240076000A-00	Washer	1
43	200T0050075000A-00	Compression spring	1
44	200T0240075000A-00	Washer	1
45	2PDI11Q0104000A_00	Sleeve	1
46	2PDI11Q0103000A-00	Spindle lock button	1
47	200W7000027000A-00	Circlip(35)	1
48	200W7000020000A-00	Circlip(16)	1
49	200T0240078000A-00	Washer	1
50	200T0050165000A-00	Compression spring	1
51	2PDI05P0902000A-00	Baffle board	1
106	2PDI11Q0200000A-00	Output shaft set	1
52	2PDI11Q0201000A-00	Spindle	1
53	2PDI11Q0202000A-00	Gear	1
54	2PDI04P0302000A-00	Active serrated disc	1
55	200T0280385000A-00	Inner wire	1
56	200T0280093000A-00	Inner wire	1
57	200T0280387000A-00	Inner wire	1
58	200T0280122000A-00	Inner wire	1
59	200T0280384000A-00	Inner wire	1
60	200T0280383000A-00	Inner wire	1
61	200T0090004000A-00	Rubber pin	2
62	200W0020117000A-00	Switch	1
63	200W0330001000A-00	Terminal port	1
64	200T0200005000A-00	Cord clamp	1
65	200W0212708000A-00	Power cord	1
66	200T0060012000A-00	Cable protector	1
67	2PDI11Q0002000A-00	Left housing	1
68	2PDI11Q0006000A-00	Label	1
69	2PDI04A0605000A-00	Push button	1
70	200T0050050000A-00	Compression spring	1
71	2PDI04A0604000A-00	Knob	1
72	200T0240077000A-00	Washer	1
73	200W7000011000A-00	Circlip(8)	1
74	20TC9500026000A-00	Stator	1
75	200T0040163000A-00	Brush holder	2
76	200T0030128000A-00	Carbon brush	2

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